

## Abstract

The present invention concerns a sensor diaphragm comprising a plurality of diaphragm layers which are arranged in sandwich-like mutually superposed relationship and which include a conveyor or separating diaphragm (1), a first electrically conductive diaphragm layer (2) arranged therebeneath, an electrically insulating diaphragm layer (3) arranged therebeneath and a second electrically conductive diaphragm layer (4) arranged therebeneath, wherein the first and second conductive diaphragm layers (2, 4) are separated from each other and electrically insulated by the electrically insulating diaphragm layer (3) and the second electrically conductive diaphragm layer (4) has portions (7) which engage through openings (5) in the electrically insulating diaphragm layer (3) and through openings (6) in the first electrically conductive diaphragm layer (2) and the electrically insulating diaphragm layer (3) has portions (12) which engage through the openings (5) in the first conductive diaphragm layer.

(Figure 3)